

Amendments to the Specification:

Please replace paragraph [0036] with the following paragraph:

An electrically conductive material is then applied on top of the electrically insulative material to form a second coating 31 that is electrically conductive in nature. Examples of suitable conductive materials include nickel, nickel alloys, copper, and copper alloys, although it will be appreciated that any desired electrically conductive material may be used. The electrically conductive material is preferably applied in a desired elongated strip to form a conductive trace along the interior surface 30 of the pipe 11. Of course it will be appreciated that, in a pipe 11 constructed of, or already lined with, an insulative material, the conductive layer may be directly applied to the interior surface 30 of the pipe 11. Where desired, a protective layer, of suitable material (such as an additional layer of insulative material) may be applied over the conductive coating 31 to provide protection to the conductive trace. An electric current may be carried along the length of the pipe 11, or pipeline 111, and monitored for changes in resistance or conductivity that may signal changes such as strain or deformation in the pipeline 111. Examples of such traces are disclosed in the pending U.S. Patent Application No. 10/074,598, filed on even date herewith and entitled NETWORK AND TOPOLOGY FOR IDENTIFYING, ~~LOCATING~~ LOCATING AND QUANTIFYING PHYSICAL PHENOMENA, SYSTEMS AND METHODS FOR EMPLOYING SAME, and identified by ~~Docket No. B-106/B-109~~, the disclosure of which is incorporated by reference herein. It will be appreciated that the use of a system 10, 110 or 210 made in accordance with the principles of the present invention may result in better control over the coating 31, improving the consistency of the coating, as discussed herein. Such a consistent coating 31 may enable a pipeline 111 to be monitored and run at an optimal flow rate, under an increased pressure or flow, increasing the efficiency of delivery through the pipeline 111.